

# COLLOQUIUM BY JOHN TENHUNEN

EVOLVING RELATIONSHIPS BETWEEN ECOSYSTEM SCIENCE, RESOURCE MANAGEMENT, AND ENVIRONMENTAL EDUCATION

TIME: 5:00-6:00 PM, WEDNESDAY, 23 NOV 2016

VENUE: AB 1079

## *Evolving Relationships between Ecosystem Science, Resource Management, and Environmental Education*

**Speaker:** John Tenhunen, Bayreuth Center for Ecological and Environmental Research, University of Bayreuth, Bayreuth, Germany

### ABSTRACT:

The recognition that human social systems must live in harmony with nature and with the production of services by the biosphere is found in many ancient writings. Along with what is currently viewed as the beginning of ecosystem science in ca. 1935, Aldo Leopold promoted within the scientific community land use ethics, that would compatibly integrate the activities of MAN within restrictions imposed by natural systems, and would, thereby, ensure their integrity. Establishment of methods to utilize our collective knowledge to support ecosystem stewardship has subsequently been emphasized in international science programs, including current efforts under the broadly supported program FUTURE EARTH.

Nevertheless, transdisciplinary approaches to resource management which merge natural and social sciences remain a challenge due to the complexity and unique nature of every regional social-ecological-system. Although general methodologies remain elusive, agreement on stepwise approaches may eventually be identified as case studies focusing on 'Learning by Doing' accumulate. The presentation will briefly address two such case studies, one carried out in Vietnam and the other in South Korea, that have been organized conceptually from ecosystem and hydrological watershed viewpoints, and that attempt to link with social science perspectives via stakeholder interviews related to economic gains and individual decision-making. Problems with respect to the approach as well as with respect to hopes for success in solving environmental management problems will be discussed.

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BIO:

John Tenhunen is Professor of Plant Ecology at the University of Bayreuth, Germany where he chaired the department from 1992 to 2015. Dr. Tenhunen earned his degrees in botany and plant physiological ecology at the University of Michigan. He is currently teaching courses in environmental science as a Guest Professor at DKU.

The interests of Dr. Tenhunen focus on relating ecosystem research and social science investigations to management of ecosystem services at landscape to regional scales. Professor Tenhunen has specific expertise in examining landscape level production and water balances via modelling approaches. He has cooperated extensively with Asian scientists in network carbon balance studies carried out in Japan, South Korea and China. He has served from 2010 – 2012 on the Scientific Steering Committee for establishment of the Center for Earth System Science at Tsinghua University in Beijing, and he has ongoing studies together with CAS scientists at the Dinghushan Biosphere Reserve in Guangdong.